

A RailIOS® Certified Device

Sensor Box

Small • Light • Scalable

The Sensor Box is The Signalling Company's on-board signalling gateway, providing access to a Balise Antenna and Speed Sensors (GPS). It is a RailIOS© compatible and certified device, mounting directly to the vehicle frame in any orientation and in any available space. Like its sister products, The Sensor Box has a tiny installation footprint, minimal cabling and low energy consumption. It simplifies installation and maintenance, requires no cab redesign, and optimizes energy consumption.



Technical Specifications

General Performance

Parameter	Specification	Compliance -or- Reference Conditions
Signalling and Speed Peripherals	Optical Pulse Generator	
	EuroAntenna (incl. KER)	
	CoRRail	
	Doppler Radar	
MTBF	> 100000h	
Design (Use) Life	20 Years	EN 50155 L4
System Interface	1 x Ethernet	
Self Test Facility	Built-In Test Equipment (BITE)	Odometry and Balise Detection



Electrical

Parameter	Specification	Compliance -or- Reference Conditions
Supply Voltage	24 VDC to 110 VDC	EN 50155
Power Consumption	56 to 93 W	BTM Telepowering dependent
Power Interruption Class	Class S3, ≤20 ms	EN50155
Inrush Current	5 Amp	

Environmental

Parameter	Specification	Compliance -or- Reference Conditions
Operating Temperature	-25°C to +70°C	EN 50155 OT3 IP20
	-25°C to +55°C (option)	EN 50155 OT1 IP53
Ingress Protection	IP20 or IP53 (option)	EN 60529
Altitude	1,400 m Above Sea Level	EN 50155
Humidity	5% to 95% RH (non-condensing)	EN 50125-1
Shock and Vibration	Cat 1 Class B	EN 61373
Hazardous Substances	RoHS	Directive 2011/65/EU
Storage Temperature	-40 to +85 °C	EN 50125-1 / Class A1
Fire Resistance	Hazard Level 3	EN45545-2

Mechanical

Parameter	Specification	Compliance -or- Reference Conditions
Dimension	288.4 x 377 x 222 mm	W x D x H
Weight	15.4 kg	Operation / Storage
Mounting Orientation	Any. Direct Mounting.	No 19in Rack / No Special Tooling
Connector Types	Power x 2 Odometry sensors x 3	
	Auxiliary (testing & diag) x 4	Military Grade : LJT MIL-DTL-38999
	EuroAntenna	M12
	Ethernet x 2	RJ45
Enclosure Material	Aluminium and Inox (Steel)	

